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ABSTRACT

This report presents information on the amount of science and engineering (S&E) research space existing at U.S. colleges, universities, and nonprofit biomedical research institutions based on research data collected biennially through the National Science Foundation. Data are also provided on the adequacy of this research space to meet current program commitments. Finally, data on S&E and non-S&E instructional space at colleges and universities are presented. Unlike previous cycles of this survey, the 2001 survey consisted of only the first two questions of the prior surveys. The 2001 survey was sent to research-performing colleges and universities in the U.S. and to U.S. biomedical research institutions that received NIH funding in the fiscal year 2001. Research-performing academic institutions are defined as colleges and universities reporting more the \$150,000 in research and development (R&D) expenditures and Historically Black Colleges and Universities with any R&D expenditures. Each academic institution's level of R&D expenditures is determined by the 2000 NSF Survey of Research and Development Expenditures at Universities and Colleges. Biomedical Research institutions are independent research hospitals and nonprofit biomedical research organizations. Chapters include: (1) "Technical Notes"; (2) "Detailed Statistical Tables"; (3) "List of Institutions"; and (4) "Survey Instrument and Materials." (AA)



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Scientific and Engineering Research Facilities

2001

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Detailed Statistical Tables

Division of Science Resources Statistics
Directorate for Social, Behavioral, and Economic Sciences

National Science Foundation



January 2002

Scientific and Engineering Research Facilities

2001

Detailed Statistical Tables

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GENERAL NOTES

The data in these tables are collected biennially through the National Science Foundation's (NSF's) Congressionally-mandated Survey of Scientific and Engineering Research Facilities. However, unlike previous cycles of the survey, the 2001 survey consisted of only the first two questions of the prior surveys.

The 2001 survey was sent to research-performing colleges and universities in the U.S. and to U.S. biomedical research institutions that received NIH funding in fiscal year 2001. Research-performing academic institutions are defined as colleges and universities reporting more than \$150,000 in research and development (R&D) expenditures and Historically Black Colleges and Universities with any R&D expenditures. Each academic institution's level of R&D expenditures is determined by the 2000 NSF Survey of Research and Development Expenditures at Universities and Colleges. Biomedical research institutions are independent research hospitals and nonprofit biomedical research organizations.

These tables provide data on the amount of science and engineering (S&E) research space existing at U.S. colleges, universities and nonprofit biomedical research institutions. Data are also provided on the adequacy of this research space to meet current program commitments. Finally, data on S&E and non-S&E instructional space at colleges and universities are presented.

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SECTION A. TECHNICAL NOTES



SECTION A. TECHNICAL NOTES

SCOPE OF SURVEY

The data presented in these tables are collected biennially through the National Science Foundation's (NSF) congressionally mandated Survey of Scientific and Engineering Research Facilities (Facilities survey). The survey originated in 1986 in response to Congress' concern about the state of research facilities at the Nation's colleges and universities. NSF's 1984 reauthorization legislation, P.L. 99-159, mandated a data collection and analytic system to identify and assess the research facilities needs of academic institutions. The legislation stated:

The National Science Foundation is authorized to design, establish, and maintain a data collection and analysis capability in the Foundation for the purpose of identifying and assessing the research facilities needs of universities and colleges. The needs of universities by major field of science and engineering, for construction and modernization of research laboratories, including fixed equipment and major research equipment, shall be documented. University expenditures for the construction and modernization of research facilities, the sources of funds, and other appropriate data shall be collected and analyzed. The Foundation, in conjunction with other appropriate Federal agencies, shall report the results to Congress. (42 U.S.C. 1886)

The National Institutes of Health (NIH) have cosponsored all cycles of the survey. Each survey cycle, except for 2001, NIH has added a limited set of questions particularly focused on animal research facilities. The 2001 survey cycle used an abbreviated form of the previous surveys, which only included prior questions one and two.

POPULATION

The survey is sent to research-performing colleges and universities in the United States. Research-performing colleges and universities are defined as meeting one of three criteria: 1) offer doctorates in S&E fields; 2) report at least \$150,000 in research and development (R&D) expenditures for fiscal year 2000; or 3) are an Historically Black College or University (HBCU) with any R&D expenditures. The population of academic institutions for this survey is derived from the 2000 NSF Survey of Research and Development Expenditures at Universities

and Colleges. The six uniformed service academies are excluded from the population.

The academic survey population included 580 institutions. These institutions did not in all cases represent separate colleges and universities. Some institutions consisted of several, separate entities each of which were sent separate surveys. For example, the Louisiana State University Agricultural and Mechanical College and the Louisiana State University Health Science Center were sent separate surveys. In determining the number of surveys to send to an institution, the Survey of Scientific and Engineering Research Facilities employed the same procedures as the NSF Survey of Research and Development Expenditures at Universities and Colleges. In the final population of 580, 14 entities represented five colleges or universities. As a consequence, the total population presented in Table 4 is 571.

The survey is also sent to nonprofit biomedical research organizations. Biomedical research organizations are part of the eligible population if they are a research hospital or a nonprofit biomedical research organization. The population of biomedical research and organizations is derived from a 2000 list of NIH grantees receiving at least \$150,000 in funding from NIH.

DATA DEFINITIONS

Research is all science and engineering R&D activities that is budgeted and accounted for. Research can be funded by the institution itself, the Federal Government, state governments, foundations, corporations or other sources.

Research space includes: research laboratories; controlled environment space such as clean or white rooms; technical support space such as carpentry and machine shops; space for laboratory animals, such as animal production colonies, holding rooms, isolation and germ-free rooms; faculty or staff offices to the extent that they are used for research; department libraries, to the extent that they are used for research; fixed equipment, such as fume hoods and benches; single pieces of non-fixed equipment each costing at least \$1 million, such as MRI equipment; and leased space. It does not include: space that is designated as federally funded research and development centers (FFRDCs); space used by faculty



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but not administered by the institution such as research space at non-university hospitals; and space administered by the institution but is leased to others for their use.

Biomedical research space is space for research in the biological sciences in medical schools, biological sciences not in medical schools, medical sciences in medical schools and medical sciences not in medical schools.

Net assignable square feet (NASF) is the sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF is measured from the inside faces of walls.

Research program commitments are all research activities of an institution that are budgeted, approved, and funded. It includes current faculty and staff or those to whom offers have been made; grants awarded, whether or not research has actually begun; and, programs which have been approved.

CHANGES IN REPORTING

Since these data were first collected in 1986, several changes have been made to the population, the sample, and some of the survey questions. Some of the changes include:

- Prior to the 1999 cycle of the survey, researchperforming academic institutions with at least
 \$50,000 in R&D expenditures (other than HBCUs)
 were included in the survey population. Starting
 with the 1999 survey cycle, the level of R&D expenditures was increased to at least \$150,000 (except HBCUs). For biomedical organizations, the
 minimum level in NIH funding received, also increased from at least \$50,000 to at least \$150,000
 in funding in the 1999 survey cycle.
- Beginning in 1999, a census of eligible institutions is surveyed. In prior years, eligible institutions were sampled using a stratified sampling design.
- For the 2001 cycle of the survey, only questions one and two of the prior surveys are asked.

ANALYTIC DEFINITIONS

Several analytic subgroups are presented in the table data. These subgroups are defined as follows.

REGIONS

In some tables, states are divided into the four U.S. regions defined by the U.S. Census Bureau. These regions are:

- Northeast: ME, NH, VT, MA, RI, CT, NY, NJ, PA.
- Midwest: OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE, KS.
- South: DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL, MS, AR, LA, OK, TX.
- West: MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK, HI.

EPSCOR AND IDEA

In addition to the regional groupings, in some tables, states are grouped according to their eligibility for NSF or NIH funding. States are eligible for the NSF Experimental Program to Stimulate Competitive Research (EPSCoR), if they have historically received less Federal R&D funding than other states. The purpose of the program is to increase the R&D funding competitiveness of these states by assisting in the development and utilization of science and technology resources located at the major universities.

NIH sponsors the Institutional Development Award (IDeA) program. This program was established in 1993 in order to enhance the competitiveness for research funding of institutions located in states with historically low aggregate success rates for NIH grant applications. The goal is to broaden the geographic distribution of NIH funding for health research.

The states currently eligible for these programs are as follows:

- EPSCoR: AL, AK, AR, ID, KS, KY, LA, ME, MS, MT, NE, NV, ND, OK, SC, SD, VT, WV, WY and Puerto Rico.
- IDeA: AK, AR, DE, HI, ID, KS, KY, LA, ME, MS, MT, NH, NM, NE, NV, ND, OK, RI, SC, SD, VT, WV, WY and Puerto Rico.

MINORITY DESIGNATIONS

The survey included subgroups to identify minorityserving institutions, including Historically Black Colleges and Universities (HBCUs) and Hispanic-Serving institutions (HSIs). According to the Department of Education, HBCUs are postsecondary institutions of higher education



founded before 1964 whose educational mission has historically been the education of black Americans. The HBCU list (updated August 1999) was provided by the White House Initiative on HBCUs. The original Survey of Scientific and Engineering Research Facilities included 29 HBCUs. These institutions have been identified separately for trend analysis.

Hispanic-serving institutions (HSIs) are defined as any accredited and degree-granting institution of higher education with 25 percent or greater total Hispanic undergraduate full-time equivalent enrollment. An institution may be both an HBCU and an HSI. A list maintained by the Department of Education (revised March 27, 2000) is the source of information on this group of schools. See Section C for a List of Institutions surveyed.

OTHER DEFINITIONS

Two other analytic subgroups are used in the tables. Field leaders are defined as the 10 institutions with the most research space in a given field. Institutional control is defined as private or public institutions.

DATA CONSIDERATIONS

Users should be aware of the several definitions associated with medical schools. Institutions are defined as having space 'in medical schools' if respondents indicated that they had space in either the biological sciences in medical schools or the medical sciences in medical schools, regardless of whether the medical schools are accredited. For the rows entitled 'Inside all AAMC medical schools,' data are only included for academic institutions with medical schools accredited by the Association of American Medical Colleges (see Section C). Both sets of data include stand-alone medical schools. In table data from prior survey cycles, the former definition of medical schools is used for all tables.

RESPONSE RATE

The 2001 survey was mailed to academic institutions in April of 2001 and data collection ended on July 24, 2001.

Of the 580 eligible academic institutions, 90 percent returned surveys. Of the 245 eligible biomedical institutions, 88 percent returned surveys.

IMPUTATION

The 2001 NSF Research Facilities Survey attempted to obtain responses from all the institutions in the defined

population. Consequently, one of the usual sources of survey error, sampling error, is not of concern in this survey. However, as is the case in almost all surveys, nonresponse error is of concern. In the 2001 NSF Research Facilities Survey, 90 percent of all eligible institutions responded.

To estimate national totals, data were imputed for the individual institutions which did not respond with any data for the 2001 survey cycle. Data were imputed using a model-based approach for the following academic institution variables: total amount of S&E research space; total amount of S&E instructional space; total amount of non-S&E instructional space; amount of S&E research space in individual fields of science; and amount of S&E instructional space by individual fields of science.

Data were not imputed for academic institutions for the following variables: total amount S&E research space leased; total amount of S&E research space needed; whether S&E research space is leased (yes or no) for individual fields of science; whether S&E research space is adequate (yes or no) by individual fields of science; and, amount of S&E research space needed by individual field of science.

Data were imputed separately for academic institutions and for biomedical institutions. For biomedical research institutions, the following variables were imputed: total amount of S&E research space in the biological sciences and the medical sciences and the amount of S&E research space in individual fields of biological and medical sciences. Data were not imputed for the following variables: total amount S&E research space leased in the biological and medical sciences; total amount of S&E research space needed in the biological and medical sciences; whether S&E research space is leased (yes or no) for the biological and medical sciences; whether S&E research space is adequate (yes or no) for the biological and medical sciences; and, the amount of S&E research space needed by the individual fields of biological and medical sciences.

Approximately 90 percent of the institutions responded to the survey. Therefore, except for the dichotomous variable on the adequacy of research space, the national estimates provided for the unimputed variables are likely to underestimate the true values for these variables. The true values for the adequacy of research space is uncertain but it is not believed to be greatly different from the estimated values.



Several regression models were used to impute values for nonrespondent institutions. If a 2001 nonrespondent had responded in 1999, the 1999 data were used as the 2001 data. Otherwise, the following models were used:

For academic nonrespondents:

- Total S&E research space for 2001 = 37,553+ 3.676*total R&D expenditures in FY 2000 + 14.714*total R&D expenditures for the agricultural sciences in FY 2000.
- Total S&E instructional space for 2001. The ratio of total instructional space to total S&E research space was determined for respondents. This ratio was then applied to impute total instructional space for each nonresponding institution.
- Total non-S&E instructional space for 2001.
 The ratio of total non-S&E instructional space to total instructional space was determined for the respondents. This ratio was then applied to impute total non-S&E instructional space values for each nonresponding institution.
- Amount of S&E research space in individual fields of science in 2001. The distribution of total S&E research space across all 13 research fields was determined using the respondent data. For the nonrespondents, their total S&E research space was then distributed across all 13 research fields.
- Amount of S&E instructional space for individual fields of science in 2001. The distribution of total S&E instructional space across all 13 research fields was determined for respondent institutions. Data for the nonrespondents were imputed by distributing their total S&E research space across all 13 research fields using the same percentages.

For biomedical research hospitals:

- Total S&E research space for 2001 = 28,791
 + .009698*amount of support received from NIH in FY 2000.
- Amount of S&E research space in the biological and medical sciences in 2001. The distribution of total S&E research space across the biological and medical research fields was determined using the respondent data. For the nonrespondents, their total S&E research space was then distributed across the two science fields.

For biomedical research organizations:

- Total S&E research space for 2001 = 32,749
 + .00134*amount of support received from NIH in FY 2000.
- Amount of S&E research space in the biological and medical sciences in 2001. The distribution of total S&E research space across the biological and medical research fields was determined using the respondent data. For the nonrespondents, their total S&E research space was then distributed across the two science fields.

ITEM NONRESPONSE

There was no item nonresponse.

DATA AVAILABILITY

Data published in this report are also available on the World Wide Web and can be found at http://www.nsf.gov/sbe/srs/stats.htm. Due to a pledge of confidentiality with the responding institutions, individual institutional data are not available; all data are in aggregate form only.





SECTION B. DETAILED STATISTICAL TABLES



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Table 1. Academic science and engineering research space, by field: 1988-2001

			Net	assignabl	le square	feet	_		Percentage
Field		[in millions]						change ²	
<u>1</u> 1111111111	1988	1990	1992	1994	1996	1998	1999	2001	1999-2001
All fields	112	116	122	127	136	143	150	155	4
Agricultural sciences	18	21	20	20	22	25	25	27	7
Biological sciences	24	27	28	28	30	31	32	33	4
Inside all medical schools ³	8	9	11	11	11	12	13	13	10
Outside medical schools	16	18	17	17	19	19	20	20	0
Computer sciences	1	1	2	2	2	2	2	2	-1
Earth, atmospheric, and ocean sciences	6	6	7	7	7	8	8	8	2
Engineering	16	17	18	21	22	23	25	26	7
Mathematics	1	1	1	1	1	1	1	1	0
Medical sciences	19	20	22	23	25	25	27	28	4
Inside all medical schools ³	14	15	16	17	18	18	19	20	5
Outside medical schools	5	5	6	6	7	7	8	8	-1
Physical sciences	16	16	16	17	18	18	19	: 19	0
Psychology	3	3	3	3	3	3	4	4	8
Social sciences		3	3	3	4	5	5	5	-4
Other sciences	4	2	2	2	2	3	3	3	-4

¹ In past surveys, the year assigned to a survey reflected the year that the survey report was published. For example, the 1998 survey was published in 1998 while the data were collected for 1997. Starting with the 1999 survey, the survey year reflects the year of the current amount of space.

NOTE: Components may not add to totals due to rounding.



² Percentage-change calculations are based on institutions that provided data for both years and on unrounded numbers.

³ Includes stand-alone medical schools.

Table 2. Geographic distribution of academic science and engineering research space, by field: 2001¹

	Net assignable square feet									
Field		[in millions]								
						EPSCoR	IDeA			
	All states	Northeast	Midwest	South	West	states ²	states3			
All fields	155.1	31.7	37.1	52.0	33.8	24.7	23.4			
Agricultural sciences	26.7	3.5	7.9	10.3	4.9	6.7	6.6			
Biological sciences	33.4	7.3	8.1	11.0	6.8	4.9	4.4			
Inside all medical schools4	13.1	3.3	3.1	4.7	1.7	1.8	1.5			
Inside all AAMC medical schools ⁴	12.3	3.1	2.9	4.4	1.7	1.6	1.4			
Outside medical schools	20.3	4.0	5.0	6.2	5.0	3.1	2.9			
Computer sciences	2.4	0.8	0.5	0.5	0.5	0.3	0.3			
Earth, atmospheric, and ocean sciences	8.1	1.5	1.4	2.8	2.3	1.7	1.8			
Engineering	25.5	5.2	5.6	9.0	5.6	3.9	3.6			
Mathematics	1.0	0.3	0.3	0.3	0.2	0.2	0.2			
Medical sciences	27.8	6.0	6.3	9.3	6.1	3.2	2.5			
Inside all medical schools4	19.9	4.2	4.4	6.9	4.3	2.3	1.8			
Inside all AAMC medical schools ⁴	19.1	4.0	4.3	6.4	4.3	1.9	1.6			
Outside medical schools	7.9	1.8	1.9	2.5	1.8	0.8	0.7			
Physical sciences	19.2	4.7	4.4	5.5	4.5	2.6	2.5			
Psychology	3.6	0.9	0.9	0.9	0.9	0.4	0.4			
Social sciences	4.5	0.9	1.0	1.5	1.1	0.7	0.7			
Other sciences	3.0	0.7	0.6	0.8	0.8	0.4	0.3			

¹ Guam and Puerto Rico are excluded from the regions but are included in other table columns where appropriate.

EPSCoR = Experimental Program to Stimulate Competitive Research

IDeA = Institutional Development Award program

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of Scientific and

Engineering Research Facilities



² States in which institutions are eligible for the National Science Foundation's Experimental Program to Stimulate Competitive Research.

³ States in which institutions are eligible for grants from the Institutional Development Award program of the National Institutes of Health.

⁴ Includes stand-alone medical schools.

Table 3. Institutional distribution of academic science and engineering research space, by field and type of institution: 2001

	Net assignable square feet [in millions]							
Field		F:-Id	Cor	ntrol	Minority-serving institutions			
	A ll institutions	Field leaders ¹	Private	Public	HBCUs ²	Hispanic-serving institutions ³		
All fields	155.1	N/A	38.9	116.3	2.7	4.6		
Agricultural sciences	26.7	13.7	1.4	25.3	0.7	0.3		
Biological sciences	33.4	5.6	10.5	22.8	0.5	1.0		
Inside all medical schools4	13.1	2.9	6.0	7.0	0.2	0.5		
Inside all AAMC medical schools ⁴	12.3	2.9	5.7	6.6	0.2	0.5		
Outside medical schools	20.3	4.6	4.5	15.8	0.3	0.5		
Computer sciences	2.4	0.9	1.0	1.4	0.2	0.1		
Earth, atmospheric, and ocean sciences	8.1	2.2	1.4	6.7	0.1	0.3		
Engineering	25.5	6.8	6.3	19.2	0.5	1.4		
Mathematics	1.0	0.2	0.3	0.7	*	*		
Medical sciences	27.8	7.1	9.7	18.0	0.2	0.6		
Inside all medical schools ⁴	19.9	5.5	8.1	11.8	0.1	0.5		
Inside all AAMC medical schools⁴	19.1	5.5	7.8	11.3	0.1	0.5		
Outside medical schools	7.9	2.6	1.6	6.3	0.1	0.1		
Physical sciences	19.2	3.6	5.6	13.6	0.4	0.6		
Psychology	3.6	0.7	0.9	2.7	*	0.1		
Social sciences	4.5	1.4	0.8	3.7	*	0.2		
Other sciences	3.0	1.4	0.9	2.1	*	0.1		

¹ Field leaders are the 10 institutions with the most research space in a given field.

HBCUs = Historically Black Colleges and Universities

N/A = Not applicable

* = Less than .05 million

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of Scientific and Engineering Research Facilities



² Includes all research-performing HBCUs, including the 29 original HBCUs that have been surveyed since 1988.

³ Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

⁴ Includes stand-alone medical schools.

Table 4. Amount of instructional and research space, by type of institution: 2001

		lı	Donostah		
Type of institution	Number of institutions	Total in all academic fields	Total in S&E fields	Total in non- S&E fields	Research space in S&E fields
	_		Net assignab [in mi	le square feet llions]	
Total	571	287	141	146	155
Doctorate-granting	342	237	120	117	147
Top 100 in research expenditures	. 100	146	76	69	110
Other	242	92	44	48	37
Nondoctorate-granting	229	50	20	29	8
Public	339	213	102	· 111	116
Doctorate-granting	208	180	89	91	111
Nondoctorate-granting	131	33	13	20	5
Private	232	74	38	35	39
Doctorate-granting	134	57	31	26	. 36
Nondoctorate-granting	98	16	8	9	3
Minority-serving institutions	90	29	13	17	7
All HBCUs ¹	61	16	8	9	3
Original 29 HBCUs	29	11	5	6	2
Hispanic-serving institutions ²	29	13	5	8	5

¹ Includes all research-performing HBCUs, including the 29 original HBCUs that have been surveyed since 1988.

KEY: S&E = Science and engineering

HBCUs = Historically Black Colleges and Universities

NOTE: Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of Scientific

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and Engineering Research Facilities



² Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

Table 5. Leased academic science and engineering research space, by type of institution: 2001

-	Total S&E research	Leased S&E research	De-centers of
Type of institution	space space		Percentage of
	[NASF in	millions]	space leased
All academic institutions	147.5	6.4	4.
Doctorate-granting institutions	140.5	6.4	4.
Nondoctorate-granting institutions	7.0	0.1	1.3
Inside all medical schools ¹	82.5	4.5	5.
Inside all AAMC medical schools ¹	79.3	4.5	5.
Outside medical schools	65.0	1.9	3.0
Control			
Public	111.6	4.3	3.9
Private	35.8	2.1	5.9
Minority-serving institutions	6.4	0.2	2.0
All HBCUs ²	2.3	*	1.
Original 29 HBCUs	1.9	*	1.3
Hispanic-serving institutions ³	4.1	0.1	3.5

¹ includes stand-alone medical schools.

HBCUs = Historically Black Colleges and Universities

NASF = Net assignable square feet S&E = Science and engineering

* = Less than .05 million

NOTES: Components may not add to totals due to rounding.

The values for total S&E research space reported in this table do not include any imputed data for survey nonrespondents. Further, data were not imputed for leased space for survey nonrespondents.



² Includes all research-performing HBCUs, including the 29 original HBCUs that have been surveyed since 1988.

³ Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

Table 6. Percentage of institutions with leased academic science and engineering research space, by field and type of institution: 2001

	Percentage of institutions							
Field	All	Doctorate-granting institutions		Control		Minority-serving institutions		
	institutions	All	Field leaders ¹	Public	Private	HBCUs ²	Hispanic- serving institutions ³	
All fields	29.2	45.0	N/A	31.9	24.7	7.1	20.0	
Agricultural sciences	15.9	20.8	60.0	16.3	11.1	0.0	0.0	
Biological sciences	12.1	19.5	50.0	13.4	10.0	2.0	0.0	
Inside all medical schools ⁴	31.8	32.7	40.0	35.6	27.5	33.3	0.0	
Inside all AAMC medical schools ⁴	35.4	35.4	40.0	36.4	34.1	33.3	0.0	
Outside medical schools	7.1	11.8	30.0	9.3	3.2	0.0	0.0	
Computer sciences	5.5	8.7	50.0	6.5	3.6	0.0	8.3	
Earth, atmospheric, and ocean sciences	7.2	10.4	20.0	8.9	2.5	0.0	6.7	
Engineering	17.4	23.0	50.0	20.9	10.1	5.0	12.5	
Mathematics	1.0	1.5	20.0	1.0	0.9	0.0	0.0	
Medical sciences	30.3	37.7	100.0	26.8	38.1	14.3	27.3	
Inside all medical schools4		58.3	90.0	55.4	58.7	66.7	60.0	
Inside all AAMC medical schools ⁴	62.4	62.4	90.0	60.0	65.9	66.7	75.0	
Outside medical schools	16.5	20.8	40.0	16.4	17.0	5.3	0.0	
Physical sciences	4.7	7.6	60.0	5.9	2.5	0.0	0.0	
Psychology	7.5	11.5	10.0	7.1	8.3	0.0	6.7	
Social sciences	9.4	13.0	40.0	10.2	7.6	0.0	12.5	
Other sciences	11.9	15.7	50.0	11.6	12.5	0.0	0.0	

¹ Field leaders are the 10 institutions with the most research space in a given field.

HBCUs = Historically Black Colleges and Universities

N/A = Not applicable

NOTES: Components may not add to totals due to rounding.

Figures are based on only those institutions with research space in a given field.

The values for leased space do not include any imputed data for survey nonrespondents.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of Scientific

and Engineering Research Facilities



² Includes all research-performing HBCUs, including the 29 original HBCUs that have been surveyed since 1988.

³ Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

⁴ Includes stand-alone medical schools.

Table 7. Academic science and engineering research space needs, by field: 2001

	Net a	ssignable square [in millions]	Percentage of	Additional space needed	
Field .	Available space in 2001	Available space reported as adequate	Additional space needed ¹	NASF reported as adequate	as a percentage of NASF ¹
All fields	147.5	42.7	40.4	29.0	27.4
Agricultural sciences	25.6	7.6	2.7	29.8	10.6
Biological sciences		8.5	10.0	26.6	31.5
Inside all medical schools ²		4.0	4.3	32.0	34.9
Inside all AAMC medical schools ²	12.1	3.9	4.1	32.6	33.9
Outside medical schools		4.5	5.7	23.1	29.3
Computer sciences	2.1	0.6	2.2	26.9	108.5
Earth, atmospheric, and ocean sciences	7.7	2.9	2.0	37.5	25.7
Engineering	24.2	5.7	6.2	23.3	25.7
Mathematics	0.9	0.6	0.6	68.8	69.1
Medical sciences	26.3	6.0	9.0	22.8	34.1
Inside all medical schools ²	18.8	3.5	6.8	18.9	36.4
Inside all AAMC medical schools ²	18.5	3.5	6.7	19.0	36.2
Outside medical schools		2.4	2.1	32.5	
Physical sciences	18.3	5.9	4.6	32.5	
Psychology	3.4	1.3	1.1	37.0	
Social sciences		1.7	1.5	38.5	34.3
Other sciences	2.8	2.0	0.5	71.8	17.5

¹ Additional space needed is based on current research program commitments.

NASF = Net assignable square feet

NOTES: Components may not add to totals due to rounding.

The values for total S&E research space reported in this table do not include any imputed data for survey nonrespondents.

Further, data were not imputed for available space reported as adequate or additional space needed.

Percentage calculations are based on unrounded numbers.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of

Scientific and Engineering Research Facilities



² Includes stand-alone medical schools.

Table 8. Academic science and engineering research space needs, by type of institution: 2001

	Net assignable square feet [in millions]						
Type of institution	Available space in 2001	Available space reported as adequate	Additional space needed ¹				
All academic institutions	147.5	42.7	40.4				
Doctorate-granting institutions	140.5	39.4	36.0				
Nondoctorate-granting institutions	7.0	3.3	4.3				
Inside all medical schools ²	82.5	22.7	22.6				
Inside all AAMC medical schools ²	79.3	22.1	21.6				
Outside medical schools	65.0	20.0	17.8				
Control							
Public	111.6	31.1	31.				
Private	35.8	11.6	9.2				
Minority-serving institutions	6.4	2.4	3.5				
All HBCUs ³	2.3	0.8	2.3				
Original 29 HBCUs	1.9	0.7	1.2				
Hispanic-serving institutions ⁴	4.1	1.6	1.2				

¹ Additional space needed is based on current research program commitments.

HBCUs = Historically Black Colleges and Universities

NOTES: Components may not add to totals due to rounding.

The values for total S&E research space reported in this table do not include any imputed data for survey nonrespondents. Further, data were not imputed for available space reported as adequate or additional space needed.



² Includes stand-alone medical schools.

³ Includes all research-performing HBCUs, including the 29 original HBCUs that have been surveyed since 1988.

⁴ Institutions where at least 25 percent of the undergraduate full-time equivalent enrollment is Hispanic.

Table 9. Academic science and engineering research space needs, by geographic distribution: 2001

	Net assignable square feet [in millions]						
Geographic distribution	Available space in 2001	Available space reported as adequate	Additional space needed ¹				
All states ²	147.5	42.7	40.4				
Northeast	29.6	11.8	7.1				
Midwest	35.6	11.3	7.2				
South	49.6	11.0	16.0				
West	32.1	8.6	9.9				
EPSCoR states ³	22.6	6.3	7.4				
IDeA states ⁴	22.2	6.5	7.0				

¹ Additional space needed is based on current research program commitments.

KEY: EPSCoR = Experimental Program to Stimulate Competitive Research

IDeA = Institutional Development Award program

NOTES: Components may not add to totals due to rounding.

The values for total S&E research space reported in this table do not include any imputed data for survey nonrespondents. Further, data were not imputed for available space reported as adequate or additional space needed.



² Guam and Puerto Rico are excluded from the regions but are included in other table columns where appropriate.

³ States in which institutions are eligible for the National Science Foundation's Experimental Program to Stimulate Competitive Research.

⁴ States in which institutions are eligible for grants from the Institutional Development Award program of the National Institutes of Health.

Table 10. Institutions needing additional academic science and engineering research space, by field: 2001

	Percentage of	Percentage of institutions needing additional space of				
Field	institutions with no additional space needed	Less than 10 percent of current space	10 percent to 25 percent of current space	More than 25 percent of current space		
All fields	17.7	13.3	18.3	50.7		
Agricultural sciences	43.0	19.6	8.4	29.0		
Biological sciences		8.8	12.5			
Inside all medical schools ¹		8.2	14.5			
Inside all AAMC medical schools ¹	33.6	9.5	15.8			
Outside medical schools	37.1	7.7	11.1	44.1		
Computer sciences	43.3	1.6	3.5			
Earth, atmospheric, and ocean sciences	47.7	6.5	10.1	35.7		
Engineering	37.8	10.0	13.6			
Mathematics		2.2	4.1	32.8		
Medical sciences	39.6	5.4	. 14.4	40.6		
Inside all medical schools ¹	27.1	6.3	25.2			
Inside all AAMC medical schools ¹	27.0	7.0	26.0	40.0		
Outside medical schools	48.0	5.7	9.3	37.0		
Physical sciences		7.4	10.8	41.2		
Psychology		5.9	5.1	41.8		
Social sciences	47.1	6.0	9.3	37.6		
Other sciences	63.6	4.2	7.6	24.6		

¹ Includes stand-alone medical schools.

NOTES: Figures are based on only those institutions with research space in a given field.

Amount of space needed was assessed relative to current research commitments.

The values for additional space needed do not include any imputed data for survey nonrespondents.



Table 11. Geographic distribution of biomedical research space, by field and type of institution: 2001

	Net assignable square feet [in millions]					
Field and type of institution				_		IDeA program
	All states	Northeast	Midwest	South	West	states ¹
Biological sciences	43.3	11.5	9.1	12.6	9.8	5.0
Academic institutions	33.4	7.3	8.1	11.0	6.8	4.4
Inside all medical schools ²	13.1	3.3	3.1	4.7	1.7	1.5
Inside all AAMC medical schools ²	12.3	3.1	2.9	4.4	1.7	1.4
Outside medical schools	20.3	4.0	5.0	6.2	5.0	2.9
Biomedical research institutions	7.4	2.5	0.7	1.3	2.8	0.6
Research hospitals	2.5	1.7	0.3	0.3	0.2	*
Medical sciences	34.9	9.3	7.3	9.9	8.3	3.0
Academic institutions	27.8	6.0	6.3	9.3	6.1	2.5
Inside all medical schools ²	19.9	4.2	4.4	6.9	4.3	1.8
Inside all AAMC medical schools ²	19.1	4.0	4.3	6.4	4.3	1.6
Outside medical schools	7.9	1.8	1.9	2.5	1.8	0.7
Biomedical research institutions	2.4	0.5	0.4	0.3	1.3	*
Research hospitals	4.7	2.9	0.6	0.3	0.9	0.4

¹ States in which institutions are eligible for grants through the Institutional Development Award program of the National Institutes of Health.

IDeA = Institutional Development Award program

* = Less than .05 million

NOTES: Guam and Puerto Rico are excluded from the regions but are included in other appropriate table columns.

Components may not add to totals due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, FY 2001 Survey of Scientific and Engineering Research Facilities



² Includes stand-alone medical schools.

Table 12. Percentage of institutions with leased biomedical research space, by field and type of institution: 2001

Type of institution	Biological sciences	Medical sciences
All institutions	18	34
Academic institutions	12	30
Inside all medical schools ¹	32	57
Inside all AAMC medical schools ¹	36	63
Outside medical schools	7	16
Biomedical research institutions	45	49
Research hospitals	38	37

¹ Includes stand-alone medical schools.

SOURCE: National Science Foundation/Division of Science Resources Statistics,

FY 2001 Survey of Scientific and Engineering Research Facilities



SECTION C. LISTS OF INSTITUTIONS



LIST OF ELIGIBLE ACADEMIC INSTITUTIONS

- 1. Abilene Christian University
- 2. Adelphi University
- 3. Alabama A & M University
- 4. Alabama State University
- 5. Albany College of Pharmacy
- 6. Albany Medical College
- 7. Albany State University
- 8. Alcorn State University
- 9. Alfred University
- 10. Allegheny College
- 11. Alliant University/California School of Professional Psychology System
- 12. American University
- 13. Amherst College
- 14. Andrews University
- 15. Appalachian State University
- 16. Applied Physics Lab
- 17. Arizona State University
- 18. Arkansas State University
- 19. Arkansas Tech University
- 20. Auburn University
- 21. Augsburg College
- 22. Azusa Pacific University
- 23. Ball State University
- 24. Barnard College
- 25. Bates College
- 26. Baylor College of Dentistry
- 27. Baylor College of Medicine
- 28. Baylor University
- 29. Benedict College
- 30. Bennett College
- 31. Bethune Cookman College
- 32. Binghamton University
- 33. Boise State University
- 34. Boston College
- 35. Boston University
- 36. Bowdoin College
- 37. Bowie State University
- 38. Bowling Green State University
- 39. Bradley University
- 40. Brandeis University
- 41. Bridgewater State College
- 42. Brigham Young University
- 43. Brown University
- 44. Bryn Mawr College
- 45. Bucknell University
- 46. C R Drew University of Medicine & Science
- 47. California Institute of Integral Studies



- 48. California Institute of Technology
- 49. California Polytechnic State University, San Luis Obispo
- 50. California State Polytechnic University Pomona
- 51. California State University, Bakersfield
- 52. California State University, Chico
- 53. California State University, Dominguez Hills
- 54. California State University, Fresno
- 55. California State University, Fullerton
- 56. California State University, Long Beach
- 57. California State University, Los Angeles
- 58. California State University, Northridge
- 59. California State University, San Bernardino
- 60. Calvin College
- 61. Carleton College
- 62. Carnegie Mellon University
- 63. Case Western Reserve University
- 64. Catholic University of America
- 65. Central Connecticut State University
- 66. Central Michigan University
- 67. Central State University
- 68. Central Washington University
- 69. Chicago State University
- 70. City College of New York
- 71. City University of New York, Baruch College
- 72. City University of New York, Brooklyn College
- 73. City University of New York, Graduate Center
- 74. City University of New York, Herbert H. Lehman College
- 75. City University of New York, Hunter College
- 76. City University of New York, John Jay College of Criminal Justice
- 77. City University of New York, York College
- 78. Claflin University
- 79. Claremont Graduate University
- 80. Clark Atlanta University
- 81. Clark University
- 82. Clarkson University
- 83. Clemson University
- 84. Cleveland State University
- 85. Colby College
- 86. College of Charleston
- 87. College of Staten Island of the City University of New York
- 88. College of the Holy Cross
- 89. College of William & Mary
- 90. College of Wooster
- 91. Colorado College
- 92. Colorado School of Mines
- 93. Colorado State University
- 94. Columbia University in the City of New York
- 95. Connecticut College
- 96. Cooper Union for the Advancement of Science and Art
- 97. Cornell University
- 98. Creighton University
- 99. Dartmouth College



- 100. Delaware State University
- 101. Denison University
- 102. DePaul University
- 103. Des Moines University Osteopathic Medical Center
- 104. Desert Research Institute
- 105. Dickinson College
- 106. Dillard University
- 107. Drake University
- 108. Drexel University
- 109. Duke University
- 110. Duquesne University
- 111. East Carolina University
- 112. East Stroudsburg University of PA
- 113. East Tennessee State University
- 114. Eastern Kentucky University
- 115. Eastern Michigan University
- 116. Eastern Virginia Medical School
- 117. Eastern Washington University
- 118. Elizabeth City State University
- 119. Embry-Riddle Aeronautical University
- 120. Emory University
- 121. Fairfield University
- 122. Fairleigh Dickinson University
- 123. Fayetteville State University
- 124. Ferris State University
- 125. Finch University of Health Sciences/The Chicago Medical School
- 126. Fisk University
- 127. Florida A & M University
- 128. Florida Atlantic University
- 129. Florida Institute of Technology
- 130. Florida International University
- 131. Florida State University
- 132. Fordham University
- 133. Fort Lewis College
- 134. Fort Valley State University
- 135. Franklin & Marshall College
- 136. Fuller Theological Seminary
- 137. Furman University
- 138. Gallaudet University
- 139. George Mason University
- 140. George Washington University
- 141. Georgetown University
- 142. Georgia Institute of Technology
- 143. Georgia Southern University
- 144. Georgia State University
- 145. Grambling State University
- 146. Grand Valley State University
- 147. Grinnell College
- 148. Hamilton College
- 149. Hampshire College



- 150. Hampton University
- 151. Harvard Faculty of Arts and Sciences
- 152. Harvard Medical School
- 153. Harvard School of Public Health
- 154. Harvey Mudd College
- 155. Haverford College
- 156. Hofstra University
- 157. Hope College
- 158. Howard University
- 159. Humboldt State University
- 160. Idaho State University
- 161. Illinois Institute of Technology
- 162. Illinois State University
- 163. Indiana State University
- 164. Indiana University
- 165. Indiana University of PA, All Campuses
- 166. Institute of Paper Science & Technology
- 167. Institute of Textile Technology
- 168. Iowa State University
- 169. Ithaca College
- 170. Jackson State University
- 171. James Madison University
- 172. Jarvis Christian College
- 173. John Carroll University
- 174. Johns Hopkins University
- 175. Johnson C. Smith University
- 176. Juniata College
- 177. Kansas State University
- 178. Kennesaw State University
- 179. Kent State University
- 180. Kentucky State University
- 181. Kettering University
- 182. Kirksville College of Osteopathic Medicine
- 183. Knox College
- 184. Lafayette College
- 185. Lake Forest College
- 186. Lamar University
- 187. Langston University
- 188. Lawrence Technological University
- 189. Lehigh University
- 190. Lemoyne-Owen College
- 191. Lewis & Clark College
- 192. Lincoln University
- 193. Lincoln University (PA)
- 194. Loma Linda University
- 195. Long Island University
- 196. Louisiana State University, A & M College
- 197. Louisiana State University, Health Science Center
- 198. Louisiana Tech University
- 199. Loyola College in Maryland
- 200. Loyola University Chicago



- 201. Maharishi University of Management
- 202. Manhattan College
- 203. Marquette University
- 204. Marshall University
- 205. Massachusetts College of Pharmacy and Allied Health Science
- 206. Massachusetts Institute of Technology
- 207. McNeese State University
- 208. MCP Hahnemann University
- 209. Medical College of Georgia
- 210. Medical College of Ohio
- 211. Medical College of Wisconsin
- 212. Medical University of South Carolina
- 213. Meharry Medical College
- 214. Mercer University
- 215. Miami University (OH)
- 216. Michigan State University
- 217. Michigan Technological University
- 218. Middle Tennessee State University
- 219. Middlebury College
- 220. Midwestern University
- 221. Milwaukee School of Engineering
- 222. Minnesota State University Mankato
- 223. Mississippi State University
- 224. Mississippi Valley State University
- 225. Monmouth University
- 226. Montana State University Bozeman
- 227. Montana Tech of The University of Montana
- 228. Montclair State University
- 229. Morehouse College
- 230. Morehouse School of Medicine
- 231. Morgan State University
- 232. Morris Brown College
- 233. Mount Holyoke College
- 234. Mount Sinai School of Medicine
- 235. Murray State University
- 236. New England College of Optometry
- 237. New Jersey Institute of Technology
- 238. New Mexico Highlands University
- 239. New Mexico Institute of Mining and Technology
- 240. New Mexico State University
- 241. New School University
- 242. New York Institute of Technology
- 243. New York Medical College
- 244. New York University
- 245. Nicholls State University
- 246. Norfolk State University
- 247. North Carolina Agricultural and Technical State University
- 248. North Carolina Central University
- 249. North Carolina State University
- 250. North Dakota State University
- 251. Northeast Louisiana University



- 252. Northeastern Illinois University
- 253. Northeastern Ohio University College of Medicine
- 254. Northeastern University
- 255. Northern Arizona University
- 256. Northern Illinois University
- 257. Northwestern University
- 258. Nova Southeastern University
- 259. Oakland University
- 260. Oakwood College
- 261. Occidental College
- 262. Ohio State University
- 263. Ohio University
- 264. Ohio Wesleyan University
- 265. Oklahoma State University
- 266. Old Dominion University
- 267. Oral Roberts University
- 268. Oregon Graduate Institute of Science and Technology
- 269. Oregon Health Sciences University
- 270. Oregon State University
- 271. Pace University
- 272. Pacific University
- 273. Pennsylvania College of Optometry
- 274. Pennsylvania State University
- 275. Philadelphia College of Osteopathic Medicine
- 276. Philadelphia College of Pharmacy and Science
- 277. Philander Smith College
- 278. Pittsburg State University
- 279. Pitzer College
- 280. Plattsburgh State University
- 281. Point Loma Nazarene College
- 282. Polytechnic University
- 283. Pomona College
- 284. Ponce School of Medicine
- 285. Portland State University
- 286. Prairie View A & M University
- 287. Princeton University
- 288. Providence College
- 289. Purdue University
- 290. Queens College City University of New York
- 291. Radford University
- 292. Reed College
- 293. Regis University
- 294. Rensselaer Polytechnic Institute
- 295. Rice University
- 296. Rider University
- 297. Rochester Institute of Technology
- 298. Rockefeller University
- 299. Rose-Hulman Institute of Technology
- 300. Rush University
- 301. Rust College
- 302. Rutgers, The State University of New Jersey



- 303. Saint Cloud State University
- 304. Saint John's University
- 305. Saint Louis University
- 306. Salem-Teikyo University
- 307. Sam Houston State University
- 308. San Diego State University
- 309. San Francisco State University
- 310. San Jose State University
- 311. Santa Clara University
- 312. Savannah State University
- 313. Seton Hall University
- 314. Shaw University
- 315. Simmons College
- 316. Skidmore College
- 317. Smith College
- 318. Sonoma State University
- 319. South Carolina State University
- 320. South Dakota School of Mines and Technology
- 321. South Dakota State University
- 322. Southeast Missouri State University
- 323. Southeastern Louisiana University
- 324. Southern Connecticut State University
- 325. Southern Illinois University at Carbondale
- 326. Southern Illinois University at Edwardsville
- 327. Southern Methodist University
- 328. Southern Oregon University
- 329. Southern University and A & M College
- 330. Southwest Missouri State University
- 331. Southwest Texas State University
- 332. Spalding University
- 333. Spelman College
- 334. St. Joseph's University
- 335. St. Mary's College of MD
- 336. St. Mary's University
- 337. St. Olaf College
- 338. Stanford University
- 339. State University of New York College of Environmental Science
- 340. State University of New York College of Optometry
- 341. State University of New York College, Brockport
- 342. State University of New York College, Buffalo
- 343. State University of New York College, Cortland
- 344. State University of New York College, Fredonia
- 345. State University of New York College, Geneseo
- 346. State University of New York College, Old Westbury
- 347. State University of New York College, Oswego
- 348. State University of New York Health Science Center at Brooklyn
- 349. State University of New York Upstate Medical University
- 350. State University of New York, Albany
- 351. State University of New York, Buffalo
- 352. State University of New York, Stony Brook
- 353. State University of West Georgia



- 354. Stephen F. Austin State University
- 355. Stevens Institute of Technology
- 356. Sul Ross State University
- 357. Swarthmore College
- 358. Syracuse University
- 359. Tarleton State University
- 360. Teachers College, Columbia University
- 361. Temple University
- 362. Tennessee State University
- 363. Tennessee Technological University
- 364. Texas A&M University
- 365. Texas A&M University, Commerce
- 366. Texas A&M Univeristy, Corpus Christi
- 367. Texas A&M University, Kingsville
- 368. Texas A&M University System Health Science Center
- 369. Texas Christian University
- 370. Texas Southern University
- 371. Texas Tech University
- 372. Texas Woman's University
- 373. Thomas Jefferson University
- 374. Tougaloo College
- 375. Towson University
- 376. Trinity College
- 377. Trinity University
- 378. Truman State University
- 379. Tufts University
- 380. Tulane University
- 381. Tuskegee University
- 382. UMDNJ-New Jersey Medical School
- 383. Union College
- 384. Union Institute
- 385. University Ctrl Del Caribe Esc Medicine
- 386. University of Akron
- 387. University of Alabama
- 388. University of Alabama, Birmingham
- 389. University of Alabama, Huntsville
- 390. University of Alaska, Fairbanks
- 391. University of Alaska, Anchorage
- 392. University of Arizona
- 393. University of Arkansas for Medical Sciences
- 394. University of Arkansas, Little Rock
- 395. University of Arkansas, Main Campus
- 396. University of Arkansas, Pine Bluff
- 397. University of California, Berkeley
- 398. University of California, Davis
- 399. University of California, Irvine
- 400. University of California, Los Angeles
- 401. University of California, Riverside
- 402. University of California, San Diego
- 403. University of California, San Francisco
- 404. University of California, Santa Barbara



- 405. University of California, Santa Cruz
- 406. University of Central Arkansas
- 407. University of Central Florida
- 408. University of Central Oklahoma
- 409. University of Chicago
- 410. University of Cincinnati
- 411. University of Colorado Health Sciences Center
- 412. University of Colorado, Boulder
- 413. University of Colorado, Colorado Springs
- 414. University of Colorado, Denver
- 415. University of Connecticut
- 416. University of Dayton
- 417. University of Delaware
- 418. University of Denver
- 419. University of Detroit Mercy
- 420. University of Findlay
- 421. University of Florida
- 422. University of Georgia
- 423. University of Guam
- 424. University of Hartford
- 425. University of Hawaii
- 426. University of Health Sciences
- 427. University of Houston
- 428. University of Houston, Downtown
- 429. University of Houston, Clear Lake
- 430. University of Idaho
- 431. University of Illinois, Chicago
- 432. University of Illinois, Springfield
- 433. University of Illinois, Urbana-Champaign
- 434. University of Iowa
- 435. University of Kansas
- 436. University of Kentucky
- 437. University of Louisiana, Lafayette
- 438. University of Louisville
- 439. University of Maine
- 440. University of Maryland, Biotechnology Institute
- 441. University of Maryland, Center for Environmental Science
- 442. University of Maryland, College Park
- 443. University of Maryland, Eastern Shore
- 444. University of Maryland, Baltimore
- 445. University of Maryland, Baltimore County
- 446. University of Massachusetts
- 447. University of Massachusetts Medical School
- 448. University of Massachusetts, Boston
- 449. University of Massachusetts, Dartmouth
- 450. University of Massachusetts, Lowell
- 451. University of Memphis
- 452. University of Miami
- 453. University of Michigan
- 454. University of Minnesota
- 455. University of Mississippi, All Campuses



- 456. University of Missouri Systems Administration
- 457. University of Missouri, Columbia
- 458. University of Missouri, Kansas City
- 459. University of Missouri, Rolla
- 460. University of Missouri, Saint Louis
- 461. University of Montana, Missoula
- 462. University of Nebraska Medical Center
- 463. University of Nebraska, Lincoln
- 464. University of Nebraska, Omaha
- 465. University of Nevada, Las Vegas
- 466. University of Nevada, Reno
- 467. University of New Hampshire
- 468. University of New Haven
- 469. University of New Mexico, Main Campus
- 470. University of New Orleans
- 471. University of North Carolina, Asheville
- 472. University of North Carolina, Chapel Hill
- 473. University of North Carolina, Charlotte
- 474. University of North Carolina, Greensboro
- 475. University of North Carolina, Wilmington
- 476. University of North Dakota
- 477. University of North Texas
- 478. University of North Texas Health Science Center
- 479. University of Northern Colorado
- 480. University of Northern Iowa
- 481. University of Notre Dame
- 482. University of Oklahoma
- 483. University of Oregon
- 484. University of Pennsylvania
- 485. University of Pittsburgh
- 486. University of Portland
- 487. University of Puerto Rico, Mayaguez Campus
- 488. University of Puerto Rico, Medical Science Campus
- 489. University of Puerto Rico, Rio Piedras Campus
- 490. University of Rhode Island
- 491. University of Richmond
- 492. University of Rochester
- 493. University of San Diego
- 494. University of San Francisco
- 495. University of South Alabama
- 496. University of South Carolina
- 497. University of South Dakota
- 498. University of South Florida
- 499. University of Southern California
- 500. University of Southern Colorado
- 501. University of Southern Maine
- 502. University of Southern Mississippi
- 503. University of Tennessee
- 504. University of Tennessee, Chattanooga
- 505. University of Texas, Arlington
- 506. University of Texas, Austin



- 507. University of Texas, Dallas
- 508. University of Texas, El Paso
- 509. University of Texas, Health Science Center at San Antonio
- 510. University of Texas, Houston Health Science Center
- 511. University of Texas, MD Anderson Cancer Center
- 512. University of Texas, Medical Branch at Galveston
- 513. University of Texas, Pan American
- 514. University of Texas, San Antonio
- 515. University of Texas, Southwestern Medical Center at Dallas
- 516. University of the District of Columbia
- 517. University of the Pacific
- 518. University of the Virgin Islands
- 519. University of Toledo
- 520. University of Tulsa
- 521. University of Utah
- 522. University of Vermont
- 523. University of Virginia
- 524. University of Washington, Seattle
- 525. University of West Florida
- 526. University of Wisconsin, Eau Claire
- 527. University of Wisconsin, Green Bay
- 528. University of Wisconsin, La Crosse
- 529. University of Wisconsin, Madison
- 530. University of Wisconsin, Milwaukee
- 531. University of Wisconsin, Oshkosh
- 532. University of Wisconsin, Parkside
- 533. University of Wisconsin, River Falls
- 534. University of Wisconsin, Stevens Point
- 535. University of Wisconsin, Stout
- 536. University of Wisconsin, Superior
- 537. University of Wisconsin, Whitewater
- 538. University of Wyoming
- 539. Utah State University
- 540. Valparaiso University
- 541. Vanderbilt University
- 542. Vassar College
- 543. Villanova University
- 544. Virginia Commonwealth University
- 545. Virginia Military Institute
- 546. Virginia Polytechnic Institute and State University
- 547. Virginia State University
- 548. Virginia Union University
- 549. Wake Forest University
- 550. Washington State University
- 551. Washington University in St. Louis
- 552. Wayne State University
- 553. Wellesley College
- 554. Wentworth Institute of Technology
- 555. Wesleyan University
- 556. West Chester University
- 557. West Texas A & M University



- 558. West Virginia State College
- 559. West Virginia University
- 560. Western Carolina University
- 561. Western Illinois University
- 562. Western Kentucky University
- 563. Western Michigan University
- 564. Western State College
- 565. Western University of Health Science
- 566. Western Washington University
- 567. Whitman College
- 568. Wichita State University
- 569. Widener University, All Campuses
- 570. Wilberforce University
- 571. Willamette University
- 572. Williams College
- 573. Winston-Salem State University
- 574. Woods Hole Oceanographic Institution
- 575. Worcester Polytechnic Institute
- 576. Wright State University
- 577. Xavier University of Louisiana
- 578. Yale University
- 579. Yeshiva University
- 580. Youngstown State University



LIST OF HISPANIC-SERVING INSTITUTIONS

- 1. California State University, Bakersfield
- 2. California State University, Dominguez Hills
- 3. California State University, Fresno
- 4. California State University, Los Angeles
- 5. California State University, Northridge
- 6. California State University, San Bernardino
- 7. City University of New York, City College
- 8. City University of New York, Herbert H. Lehman College
- 9. City University of New York, John Jay College of Criminal Justice
- 10. Florida International University
- 11. New Mexico Highlands University
- 12. New Mexico State University
- 13. St. Mary's University
- 14. Sul Ross State University
- 15. Texas A&M University, Corpus Christi
- 16. Texas A&M University, Kingsville
- 17. Universidad Central Del Caribe Esc Medicine
- 18. University of Houston
- 19. University of Houston, Downtown
- 20. University of Miami
- 21. University of New Mexico, Main Campus
- 22. University of Puerto Rico, Mayaguez Campus
- 23. University of Puerto Rico Medical Sciences Campus
- 24. University of Puerto Rico, Rio Piedras Campus
- 25. University of Southern Colorado
- 26. University of Texas, Pan American
- 27. University of Texas, El Paso
- 28. University of Texas, San Antonio
- 29. University of Texas Health Science Center, San Antonio



LIST OF ORIGINAL 29 HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

- 1. Alabama A&M University
- 2. Albany State University
- 3. Alcorn State University
- 4. Clark Atlanta University
- 5. Dillard University
- 6. Fisk University
- 7. Florida A&M University
- 8. Grambling State University
- 9. Howard University
- 10. Jackson State University
- 11. Kentucky State University
- 12. Lincoln University
- 13. Lincoln University (PA)
- 14. Meharry Medical Collage
- 15. Morehouse School of Medicine
- 16. Morgan State University
- 17. Norfolk State University
- 18. North Carolina Agricultural and Technical State
- 19. Prairie View A&M University
- 20. South Carolina State University
- 21. Southern University & A&M College
- 22. Tennessee State University
- 23. Texas Southern University
- 24. Tuskegee University
- 25. Central State University
- 26. University of Arkansas, Pine bluff
- 27. University of Maryland, Eastern Shore
- 28. University of the District of Columbia
- 29. Virginia State University



LIST OF HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

- 1. Alabama A&M University
- 2. Alabama State University
- 3. Albany State University
- 4. Alcorn State University
- 5. Benedict College
- 6. Bennett College
- 7. Bethune Cookman College
- 8. Bowie State University
- 9. Central State University
- 10. Claflin University
- 11. Clark Atlanta University
- 12. Delaware State University
- 13. Dillard University
- 14. Elizabeth City State University
- 15. Fayetteville State University
- 16. Fisk University
- 17. Florida A&M University
- 18. Fort Valley State University
- 19. Grambling State University
- 20. Hampton University
- 21. Howard University
- 22. Jackson State University
- 23. Jarvis Christian College
- 24. Johnson C. Smith University
- 25. Kentucky State University
- 26. Langston University
- 27. Lemoyne-Owen College
- 28. Lincoln University
- 29. Lincoln University (PA)
- 30. Meharry Medical College
- 31. Mississippi Valley State University
- 32. Morehouse College
- 33. Morehouse School of Medicine
- 34. Morgan State University
- 35. Morris Brown College
- 36. Norfolk State University
- 37. North Carolina Agricultural and Technical State University
- 38. North Carolina Central University
- 39. Oakwood College
- 40. Philander Smith College
- 41. Prairie View A&M University
- 42. Rust College
- 43. Savannah State University
- 44. Shaw University
- 45. South Carolina State University
- 46. Southern University and A&M College



- 47. Spelman College
- 48. Tennessee State University
- 49. Texas Southern University
- 50. Tougaloo College
- 51. Tuskegee University
- 52. University of Arkansas, Pine Bluff
- 53. University of Maryland, Eastern Shore
- 54. University of the District of Columbia
- 55. University of the Virgin Islands
- 56. Virginia State University57. Virginia Union University
- 58. West Virginia State College 59. Wilberforce University
- 60. Winston-Salem State University
- 61. Xavier University of Louisiana



LIST OF ELIGIBLE BIOMEDICAL INSTITUTIONS

- 1. Aaron Diamond AIDS Research Center
- 2. Addiction Research Institute
- 3. Albert Einstein Medical Center
- 4. Allegheny-Singer Research Institute
- 5. Alton Ochsner Medical Foundation
- 6. AMC Cancer Research Center
- 7. American Dental Association Health Foundation
- 8. American Health Foundation
- 9. American Institutes for Research
- 10. American Type Culture Collection
- 11. Arkansas Children's Hospital Research Institute
- 12. Baptist Memorial Hospital (Memphis, TN)
- 13. Barnes-Jewish Hospital
- 14. Battelle Memorial Institute
- 15. Baylor Research Institute
- 16. Beckman Research Institute
- 17. Belmont Center/Comprehensive Treatment
- 18. Beth Israel Deaconess Medical Center
- 19. Beth Israel Medical Center (New York)
- 20. Biomedical Research Institute
- 21. Blood Center of Southeastern Wisconsin
- 22. Boston Biomedical Research Institute
- 23. Boston Medical Center
- 24. Boyce Thompson Institute for Plant Research
- 25. Brentwood Biomedical Research Institute
- 26. Brigham and Women's Hospital
- 27. Bronx-Lebanon Hospital Center
- 28. Buck Institute for Age Research
- 29. Butler Hospital
- 30. California Pacific Medical Center, Pacific Campus
- 31. Cancer Research Fund of Contra Costa
- 32. Carnegie Institution of Washington, DC
- 33. Carolinas Medical Center
- 34. Catherine McAuley Health Center
- 35. Cedars-Sinai Medical Center
- 36. Center for Applied Linguistics
- 37. Center for Blood Research
- 38. Center for Health Studies
- 39. Central New York Research Corporation
- 40. Children's Hospital (Denver)
- 41. Children's Hospital and Regional Medical Center
- 42. Children's Hospital Boston
- 43. Children's Hospital Medical Center (Cincinnati)
- 44. Children's Hospital Oakland
- 45. Children's Hospital of Los Angeles
- 46. Children's Hospital of Orange County
- 47. Children's Hospital of Philadelphia
- 48. Children's Hospital of Pittsburgh



- 49. Children's Hospital Research Center
- 50. Children's Memorial Hospital (Chicago)
- 51. Children's Mercy Hospital (Kansas City, MO)
- 52. Children's Research Institute (Columbus, OH)
- 53. Children's Research Institute (Washington, DC)
- 54. Christiana Care
- 55. City of Hope National Medical Center
- 56. Cleveland Clinic Foundation
- 57. Cold Spring Harbor Laboratory
- 58. Columbus Community Clinical Oncology Program
- 59. Connecticut Children's Medical Center
- 60. Cooper Health System
- 61. Cooper Institute for Aerobics Research
- 62. Coriell Institute for Medical Research
- 63. Cox Health Systems
- 64. Dana-Farber Cancer Institute
- 65. Decatur Memorial Hospital
- 66. Delaware Water Gap Science Institute
- 67. Denver Health & Hospital Authority
- 68. Developmental Studies Center
- 69. Doheny Eye Institute
- 70. East Bay Institute for Research and Education
- 71. Education Development Center, Inc.
- 72. Eleanor Roosevelt Institute for Cancer Research
- 73. Emma Pendleton Bradley Hospital
- 74. Ernest Gallo Clinic and Research Center
- 75. Evanston Hospital
- 76. Evanston Northwestern Healthcare Research Institute
- 77. Family Health International
- 78. Forsyth Institute
- 79. Fox Chase Cancer Center
- 80. Fred Hutchinson Cancer Research Center
- 81. Friends Research Institute Inc.
- 82. Frontier Science & Technology Research Foundation, Inc.
- 83. Garden State Cancer Center/Center Molecular Medicine & Immunology
- 84. Good Samaritan Hospital
- 85. Good Samaritan Regional Med. Center
- 86. Greenwood Genetic Center
- 87. Guthrie Foundation for Education & Research
- 88. Hackensack University Medical Center
- 89. Harbor Branch Oceanographic Institution, Inc.
- 90. Harbor-UCLA Research & Education Institute
- 91. Haskins Laboratories
- 92. Hauptman-Woodward Medical Research Institute
- 93. Health Partners Research Foundation
- 94. Hebrew Rehabilitation Center for Aged
- 95. Helen Hayes Hospital
- 96. Hope Heart Institute
- 97. Hospital for Joint Diseases
- 98. Hospital for Special Surgery
- 99. House Ear Institute



- 100. Human BioMolecular Research Institute
- 101. Huntington Medical Research Institutes
- 102. IIT Research Institute
- 103. Infectious Disease Research Institute
- 104. Ingalls Memorial Hospital
- 105. Institute for Basic Research in Developmental Disabilities
- 106. Institute for Genomic Research
- 107. Institute for Molecular Medicine
- 108. Institute for Systems Biology
- 109. Iowa Oncology Research Association
- 110. J. David Gladstone Institutes
- 111. Jackson Laboratory
- 112. John B. Pierce Laboratory
- 113. John Wayne Cancer Institute
- 114. Johns Hopkins Bayview Medical Center
- 115. Joslin Diabetes Center
- 116. Kaiser Foundation Research Institute
- 117. Kennedy Krieger Institute
- 118. Kessler Medical Rehab. Research & Education Corp.
- 119. Kettering Medical Center
- 120. Kuakini Medical Center
- 121. La Jolla Institute for Allergy/Immunology
- 122. La Jolla Institute for Molecular Medicine
- 123. Lahey Hitchcock Medical Center
- 124. Lankenau Medical Research Center
- 125. LDS Hospital
- 126. Legacy Good Samaritan Hospital & Medical Center (Portland, OR)
- 127. Long Island Jewish Medical Center
- 128. Lovelace Respiratory Research Institute
- 129. Magee-Womens Research Institute
- 130. Maine Medical Center
- 131. Mallory Institute of Pathology
- 132. Marine Biological Laboratory
- 133. Marshfield Clinic
- 134. Mary Imogene Bassett Hospital
- 135. Maryland Medical Research Institute
- 136. Masonic Medical Research Lab
- 137. Massachusetts Eye and Ear Infirmary
- 138. Massachusetts General Hospital
- 139. McLaughlin Research Institute for Biomedical Sciences
- 140. McLean Hospital
- 141. Medical Diagnostic Research Foundation
- 142. Medstar Research Institute
- 143. Mellon Pitts Corporation
- 144. Memorial Hospital of Rhode Island
- 145. Memorial Hospital of South Bend
- 146. Methodist Medical Center of Illinois
- 147. Methodist Research Institute
- 148. Metrohealth Medical Center
- 149. Michigan Public Health Institute
- 150. Midwest Research Institute



- 151. Minneapolis Medical Research Foundation, Inc.
- 152. Miriam Hospital
- 153. Molecular Research Institute
- 154. Molecular Sciences Institute
- 155. Monell Chemical Senses Center
- 156. Montefiore Medical Center
- 157. Moss Rehabilitation Hospital
- 158. Mount Desert Island Biological Lab
- 159. Mount Sinai Medical Center (Miami Beach)
- 160. Nathan S. Kline Institute for Psychiatric Research
- 161. National Bureau of Economic Research
- 162. National Childhood Cancer Foundation
- 163. National Development & Research Institutes, Inc.
- 164. National Disease Research Interchange
- 165. National Jewish Medical & Research Center
- 166. National Opinion Research Center
- 167. Natural Medicines Research Institute
- 168. Neuropsychiatric Research Institute
- 169. New England Medical Center
- 170. New York Blood Center
- 171. New York Methodist Hospital
- 172. New York State Psychiatric Institute
- 173. North Shore University Hospital
- 174. Northwest Hospital
- 175. Oklahoma Medical Research Foundation
- 176. Oregon Research Institute
- 177. Oregon Social Learning Center
- 178. Pacific Health Research Institute
- 179. Pacific Institute For Research And Evaluation
- 180. Pacific Northwest Research Institute
- 181. Palo Alto Institute/Molecular Medicine
- 182. Palo Alto Medical Foundation Research Institute
- 183. Parker Hughes Institute
- 184. Philadelphia Geriatric Center-Friedman Hospital
- 185. Picower Institute for Medical Research
- 186. Population Council
- 187. Providence Portland Medical Center
- 188. Public Health Institute
- 189. Public Health Research Institute
- 190. Puget Sound Blood Center
- 191. Queen's Medical Center
- 192. Rand Corporation
- 193. Rehabilitation Institute Research Corp.
- 194. Research Triangle Institute
- 195. Rhode Island Hospital (Providence, RI)
- 196. Riverside Research Institute
- 197. Roger Williams Hospital
- 198. Roswell Park Cancer Institute
- 199. Rush-Presbyterian-St. Luke's Medical Center
- 200. Saint Michael's Medical Center
- 201. Salk Institute



- 202. San Juan City Hospital
- 203. Santa Rosa Memorial Hospital
- 204. Schepens Eye Research Institute
- 205. Scientific Analysis Corporation
- 206. Scott and White Memorial Hospital
- 207. Scripps Research Institute
- 208. Seattle Biomedical Research Institute
- 209. Sinai Samaritan Medical Center
- 210. Sloan-Kettering Institute for Cancer Research
- 211. Smith-Kettlewell Eye Research Institute
- 212. Societal Institute of the Mathematical Sciences
- 213. Southern Research Institute
- 214. Southwest Foundation for Biomedical Research
- 215. Spartanburg Regional Medical Center
- 216. SRI International
- 217. St. Elizabeth's Medical Center
- 218. St. Francis Hospital/Medical Center
- 219. St. John's Mercy Medical Center
- 220. St. Joseph Mercy Oakland
- 221. St. Joseph's Hospital and Medical Center
- 222. St. Joseph's Hospital of Atlanta
- 223. St. Jude Children's Research Hospital
- 224. St. Luke's Roosevelt Hospital Center (New York)
- 225. Stehlin Foundation For Cancer Research
- 226. Sun Health Research Institute
- 227. Swedish Medical Center
- 228. The Burnham Institute
- 229. Torrey Pines Institute for Molecular Studies
- 230. Trudeau Institute, Inc.
- 231. Urban Institute
- 232. Utah Artificial Heart Institute
- 233. Vaccine Research Institute of San Diego
- 234. Via Christi Reg. Med. Center St. Francis Campus
- 235. Virginia Mason Research Center/Benaroya Research Institute
- 236. Wadsworth Center
- 237. Weis Center for Research-Geisinger Clinic
- 238. Wheeler Institute for Biomedical Research
- 239. Whitehead Institute for Biomedical Research
- 240. William Beaumont Hospital Research Institute
- 241. Wills Eye Hospital
- 242. Winifred Masterson Burke Medical Research Institute
- 243. Winthrop University Hospital
- 244. Wistar Institute
- 245. Women & Infants Hospital



ASSOCIATION OF AMERICAN MEDICAL COLLEGES MEMBER MEDICAL SCHOOLS INCLUDED IN SURVEY POPULATION

- 1. Albany Medical College
- 2. Albert Einstein College of Medicine of Yeshiva University
- 3. Baylor College of Medicine
- 4. Boston University School of Medicine
- 5. Brody School of Medicine at East Carolina University
- 6. Brown Medical School
- 7. Case Western Reserve University School of Medicine
- 8. Columbia University College of Physicians and Surgeons
- 9. Creighton University School of Medicine
- 10. Dartmouth Medical School
- 11. Duke University School of Medicine
- 12. East Tennessee State University
- 13. Eastern Virginia Medical School of the Medical College of Hampton Roads
- 14. Emory University School of Medicine
- 15. Finch University of Health Sciences/The Chicago Medical School
- 16. George Washington University School of Medicine and Health Sciences
- 17. Georgetown University School of Medicine
- 18. Harvard Medical School
- 19. Howard University College of Medicine
- 20. Indiana University School of Medicine
- 21. Jefferson Medical College of Thomas Jefferson University
- 22. Joan & Sanford I. Weill Medical Collage of Cornell University
- 23. Joan C. Edwards School of Medicine at Marshall University
- 24. Johns Hopkins University
- 25. Keck School of Medicine of the University of Southern California
- 26. Loma Linda University School of Medicine
- 27. Louisiana State University School of Medicine in New Orleans
- 28. Loyola University Chicago Stritch School of Medicine
- 29. MCP Hanemann University School of Medicine
- 30. Medical College of Georgia
- 31. Medical College of Ohio
- 32. Medical College of Wisconsin
- 33. Medical University of South Carolina College of Medicine
- 34. Meharry Medical College of Medicine
- 35. Mercer University School of Medicine
- 36. Michigan State University College of Human Medicine
- 37. Morehouse School of Medicine
- 38. Mount Sinai School of Medicine of New York University
- 39. New York Medical College
- 40. New York University School of Medicine
- 41. Northeastern Ohio Universities College of Medicine
- 42. Northwestern University Medical School
- 43. Ohio State University College of Medicine and Public Health
- 44. Oregon Health Sciences University School of Medicine
- 45. Pennsylvania State University School of Medicine
- 46. Ponce School of Medicine



- 47. Rush Medical College of Rush University
- 48. Saint Louis University School of Medicine
- 49. Southern Illinois University School of Medicine
- 50. Stanford University School of Medicine
- 51. State University of New York Downstate Medical Center College of Medicine
- 52. State University of New York Upstate Medical University
- 53. Stony Brook University Health Science Centers School of Medicine
- 54. Temple University School of Medicine
- 55. Texas A&M University System Health Science Center College of Medicine
- 56. Texas Tech University Health Sciences Center School of Medicine
- 57. Tufts University School of Medicine
- 58. Tulane University School of Medicine
- 59. UMDNJ-New Jersey Medical School
- 60. Universidad Central Del Caribe
- 61. University at Buffalo, State University of New York, School of Medicine & Biomedical Sciences
- 62. University of Alabama School of Medicine
- 63. University of Arizona College of Medicine, Arizona Health Sciences Center
- 64. University of Arkansas College of Medicine
- 65. University of California at Davis, School of Medicine
- 66. University of California at Irvine, College of Medicine
- 67. University of California at Los Angeles, UCLA School of Medicine
- 68. University of California at San Diego, School of Medicine
- 69. University of California at San Francisco, School of Medicine
- 70. University of Chicago, Division of the Biological Sciences, The Pritzker School of Medicine
- 71. University of Cincinnati College of Medicine
- 72. University of Colorado Health Sciences Center School of Medicine
- 73. University of Connecticut School of Medicine
- 74. University of Florida College of Medicine
- 75. University of Hawaii John A. Burns School of Medicine
- 76. University of Illinois College of Medicine
- 77. University of Iowa College of Medicine
- 78. University of Kansas School of Medicine
- 79. University of Kentucky College of Medicine
- 80. University of Louisville School of Medicine
- 81. University of Maryland School of Medicine
- 82. University of Massachusetts Medical School
- 83. University of Miami School of Medicine
- 84. University of Michigan Medical School
- 85. University of Minnesota Medical School Twin Cities
- 86. University of Mississippi School of Medicine
- 87. University of Missouri Columbia School of Medicine
- 88. University of Missouri Kansas City School of Medicine
- 89. University of Nebraska College of Medicine
- 90. University of Nevada School of Medicine
- 91. University of New Mexico School of Medicine
- 92. University of North Carolina at Chapel Hill School of Medicine
- 93. University of North Dakota School of Medicine and Health Sciences
- 94. University of Oklahoma College of Medicine
- 95. University of Pennsylvania School of Medicine
- 96. University of Pittsburgh School of Medicine
- 97. University of Puerto Rico School of Medicine



- 98. University of Rochester School of Medicine and Dentistry
- 99. University of South Alabama College of Medicine
- 100. University of South Carolina School of Medicine
- 101. University of South Dakota School of Medicine
- 102. University of South Florida College of Medicine
- 103. University of Tennessee Health Science Center College of Medicine
- 104. University of Texas Houston Medical School
- 105. University of Texas Medical Branch at Galveston
- 106. University of Texas Medical School at San Antonio
- 107. University of Texas Southwestern Medical Center at Dallas Southwestern Medical School
- 108. University of Utah School of Medicine
- 109. University of Vermont College of Medicine
- 110. University of Virginia School of Medicine
- 111. University of Washington School of Medicine
- 112. University of Wisconsin Medical School
- 113. Vanderbilt University School of Medicine
- 114. Virginia Commonwealth University School of Medicine
- 115. Wake Forest University School of Medicine
- 116. Washington University in St. Louis School of Medicine
- 117. Wayne State University School of Medicine
- 118. West Virginia University School of Medicine
- 119. Wright State University School of Medicine
- 120. Yale University School of Medicine



Section D. Survey Instrument and Materials



National Science Foundation National Institutes of Health

FY 2001 SURVEY OF SCIENTIFIC AND ENGINEERING RESEARCH FACILITIES

Acting out of concerns raised by the academic community, Congress directed the National Science Foundation (NSF) to collect and analyze data about research facilities at colleges and universities to report to Congress every two years. This survey is in response to that requirement under authorization of the National Science Foundation Act of 1950, as amended. The National Institutes of Health (NIH), co-sponsor of the survey, added biomedical research organizations and independent research hospitals to the survey.

Your participation in this survey is voluntary. However, your response is very important to us. Aggregate data from this survey are used by Congress, the Executive Branch, many higher education associations, and college and university administrators to help make policy decisions. The information compiled from these questions will provide a broad, quantitative picture of the amount and adequacy of existing science and engineering (S&E) research facilities.

NSF and NIH do not use or allow others to use detailed responses in any manner that would identify an individual organization's responses.

Preparing the information and completing the paper questionnaire requires an average of 2 hours. If you wish to comment on this burden, contact Suzanne H. Plimpton, Reports Clearance Officer, NSF, via email splimpto@nsf.gov or at (703) 292-7556. Or contact the Office of Management and Budget, Paperwork Reduction Project (OMB Number 3145-0101), Washington, DC 20603. Please correct if name or address has changed.

Organizations are requested to complete and return this form to:

QRC Division of Macro International Inc. Attn: NSF Facilities Survey 7315 Wisconsin Avenue, Suite 400W Bethesda, MD 20814-3202

This form should be returned by July 24, 2001.

REMEMBER: You can submit your data on the Web at http://www.qrc.com/facweb. Please note that your Web user ID and password are printed on the adjacent label, which also contains your name and address.

If you have any questions about the survey in general please contact Leslie Christovich, Ph.D., of NSF at lchristo@nsf.gov, or Mary Sanders of QRC at (301) 657-3077, ext. 306.

If you have any technical questions, please contact technical support at (301) 657-3070 or facilities@qrc.com.

Thank you in advance for your participation in this survey.



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How to Fill Out This Survey

A. Decide if you want to complete the paper or Web version of the questionnaire

You have the option of completing this survey using the paper version of the questionnaire, which is included in this packet, or the Web version of the questionnaire. We recommend that you use the Web version because this version reduces the need for followup and provides an online help feature. To access the Web version of the survey, just go to http://www.qrc.com/facweb. To use the Web version you will need to enter the Web user ID and password included in this packet.

B. Attention: previous survey participants

If your organization participated in the last cycle of this survey, you can review your organization's final data for questions about the amount and adequacy of space. To do this go to the survey Web site, at http://www.qrc.com/facweb, and follow the instructions. Where appropriate, you will have the option to use the historical data as your current submission.

C. Questions

If you are completing the questionnaire using the Web version of the survey, you may access the online help feature that is provided at any time. If this does not answer your questions or if you are completing the paper version of the survey, please contact one of the following people:

- For specific problems regarding survey items or definitions, please contact Mary Sanders at (301) 657-3077, ext. 306, or msanders@qrc.com.
- For technical problems please contact technical support at (301) 657-3070, or facilities@grc.com.



Instructions for Completing Item 1

• First, to answer item 1 you need to consider these two important definitions:

net assignable square feet (NASF): Is the sum of all areas (in square feet) on all floors of a building assigned to, or available to be assigned to, an occupant for specific use, such as instruction or research. NASF should be measured from the inside faces of walls.

research: Refers to all research activities of your organization that are budgeted and accounted for. Research can be funded by the organization itself, the Federal Government, State governments, foundations, corporations, or other sources.

In this survey, research space includes:

- research laboratories
- instructional laboratories that happen to be used for research
- computer laboratories or other departmental space used for research
- controlled-environment space, such as clean or white rooms
- technical-support space, such as carpentry and machine shops
- space for laboratory animals, such as animal production colonies, holding rooms, isolation and germ-free rooms
- faculty staff offices or graduate student offices, to the extent that they are used for research
- department libraries, to the extent that they are used for research
- libraries that are not departmentally based, to the extent that they are used for research
- facilities containing fixed (built-in) equipment such as fume hoods and benches; or single pieces of non-fixed equipment, each costing at least \$1 million, such as MRI equipment
- leased space

It does not include:

- space that has been designated as federally funded research and development centers (FFRDC)
- space that is used by faculty, but not administered by the organization, such as research space at Veterans Administration or other non-university hospitals
- space that is administered by your organization, but leased to others for their use
- Second, you will need to classify your organization's departments and programs into the broad fields listed in item 1. This is done using the groupings provided in the crosswalk at the end of the survey.
- Third, you will need to prorate the NASF in two cases: when space is used for more than one purpose and when space is shared by different S&E fields.

If space is used for more than one purpose, prorate the NASF to reflect the proportion of use for the activity the item is asking about. For example, if space is used for S&E research only during the summer months (one-fourth of the year), then count 25% of the NASF as S&E research space.

If space is shared by S&E fields, prorate the NASF to reflect the proportion of use by each field. For example, if space is used equally for research activity in Computer Sciences and Mathematics, count 50 percent of the NASF as research space for Computer Sciences and 50 percent for Mathematics.

• Fourth, if your organization uses a facilities inventory system based on NCES, NACUBO, or WICHE classifications, in Column 1 ("Instructional NASF"), use only the space that is assigned to functional category 1 (Instruction); in Column 2 ("Research NASF"), use only the space that is assigned to functional category 2 (Research). For help with this, please refer to the Postsecondary Education Facilities Inventory and Classification Manual, U.S. Department of Education, Office of Educational Research and Improvement, NCES 92-165, the 1988 NACUBO Taxonomy of Functions, or the 1972 WICHE Program Classification Structure.

3



Item 1: Amount of Space in Your Institution

1a. What was the amount of NASF used for instruction and research in each of the fields listed below at the end of your FY 2001? Be sure to include leased space and animal research space. You may estimate if exact figures are not available. N/A not applicable; no space reported Past participants: If there has been no change since 1999, check this box ☐ and go to Item 2. Is any of this Research NASF **Instructional NASF** S&E Field research space leased? Yes No N/A Engineering Ο Ο **Physical Sciences** O Earth, Atmospheric, and Ocean Sciences Mathematical Sciences O O Computer Sciences O **Agricultural Sciences** O O Biological Sciences not in Medical Schools \bigcirc Biological Sciences in Medical Schools Medical Sciences not in Medical Schools Medical Sciences in Medical Schools Psychology Social Sciences Other Sciences, not elsewhere classified Please List: O Ο O Total (all S&E Fields) 1b. How much of the total research space for all S&E fields (Total under Research NASF in the table above) is leased? If you do not know the exact amount, please provide your best estimate. NASF of leased research space 1c. What is the amount of NASF used for instruction in all non-S&E fields [for example, law, business administration/ management (except economics), humanities, history, the arts or education (except educational psychology)]. If you do not know the exact amount, please provide your best estimate. Instructional NASF for all non-S&E fields + Instructional NASF for all S&E fields (Instructional NASF total from Item 1a) = Grand Total Instructional NASF



<u>Instructions for Completing Item 2</u>

• To answer Item 2 you need the following definition:

research program commitments: Refers to all research activities of an organization that are budgeted, approved, and funded.

Research program commitments include:

- current faculty and staff or those to whom offers have been made
- grants awarded, whether or not research has actually begun
- programs that have been approved

Research program commitments do not include:

- potential staff without offers
- grants applied for but not awarded
- programs designed but not yet approved
- You may also want to look at the definitions of research space provided in the instructions for Item 1.



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Item 2: Adequacy of Research Space

2a. Please indicate whether the amount of research space available to each of the S&E fields listed below is adequate, inadequate, or not applicable, using these definitions:

Adequate sufficient amount of space to support all the needs of your current S&E research program commitments in the field insufficient space to support the needs of your current S&E research program commitments in the field, or non-existent but needed

Not applicable no space reported

Past participants: If there has been no change since your 1999 survey, check this box □ and complete your submission.

2b. If the amount of space is inadequate, then list in the same table below the amount of additional space needed.

		Item 2a	Item 2b		
	Adequac	cy of S&E research	If the amount of space is		
S&E Field	For eac	h field, choose th	inadequate:		
		response.	Enter additional space needed.		
	Adequate	Inadequate	Not Applicable	Additional NASF Needed	
Engineering	0	0	0		
Physical Sciences	0	0	0	-	
Earth, Atmospheric, and Ocean Sciences	0	0	0		
Mathematical Sciences	0	0	0		
Computer Sciences	0	0	0		
Agricultural Sciences	0	0	0		
Biological Sciences not in Medical Schools	0	0	0		
Biological Sciences in Medical Schools	0	0	0		
Medical Sciences not in Medical Schools	0	0	0		
Medical Sciences in Medical Schools	0	0	0		
Psychology	0	0	0		
Social Sciences	0	0	0		
Other Sciences, not elsewhere classified Please List:	0	0	0		



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CROSSWALK BETWEEN NSF FIELDS OF SCIENCE & ENGINEERING AND THE NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

NCES fields that are included within the NSF category as well as some additional illustrative disciplines. These additional disciplines are intended to be guidelines—not sharp definitions—as to what should be reported under a particular field.

Questionnaire Field	NCES Class	ification	and Additional Illustrati	ve Dis	ciplines
ENGINEERING Aeronautical & Astronautical	14.02 Aerospace, Aeronautical, and Astronautical Engineering (also aerodynamics, space technology)				
Bioengineering/ Biomedical Engineering	14.05 Bioengineering and Biomedical Engineering				
Chemical	03.0509 Wood Science (also petroleum refining process)	14.07 14.32	Chemical Engineering Polymer/Plastics Engineering	14.25	Petroleum Engineering
Civil	04.02 Architecture 14.14 Environmental/Environmental (also geotechnical, hydraulic, hydrologi			14.08 ansportati	Civil Engineering
Electrical	14.09 Computer Engineering (also power engineering)	14.10	Electrical, Electronics, and Communications Engineering		
Mechanical	14.11 Engineering Mechanics	14.19	Mechanical Engineering		
Metallurgical & Materials	14.06 Ceramic Sciences and Eng. 14.18 Materials Engineering 14.28 Textile Sciences and Eng. (also welding)	14.15 14.20 14.31	Geological Engineering Metallurgical Engineering Materials Science	14.16 14.21 40.070	Geophysical Engineering Mining and Mineral Eng. 1 Metallurgy
Other	14.01 Engineering, General 14.13 Engineering Science 14.23 Nuclear Engineering 14.27 Systems Engineering 14.99 Engineering, Other (also marine and ocean engineering sy	14.03 14.17 14.24 14.29 30.06 stems)	Agricultural Engineering Industrial/Manufacturing Eng. Ocean Engineering Engineering Design Systems Science and Theory	14.12 14.22 14.30	Engineering Physics Naval Architecture and Marine Engineering Eng./Industrial Management
PHYSICAL SCIENCES Astronomy	40.02 Astronomy (also Gamma-ray, neutrino, optical and	40.03 radio, X-ra	Astrophysics y)	-	=-
Chemistry	40.05 Chemistry (also analytical, in biochemistry))	organic, org	ganic, organo-metallic, pharmace	eutical, pl	hysical, polymer sciences (exce
Physics	40.08 Physics (also acoustics, ator optics, plasma, theoretical/mathematics		ar, chemical, condensed matter,	elementa	ary particles, nuclear structure,
Other	40.01 Physical Sciences, General (used for multidisciplinary projects with		9 Miscellaneous Physical Sciences, Other sciences and for disciplines not r	40.99	Physical Sciences, Other separately)
EARTH, ATMOSPHERIC, & OCEAN SCIENCES Atmospheric	40.04 Atmospheric Sciences and M (also aeronomy, extraterrestrial atmosp				
Earth Sciences	15.1102 Surveying 40.0703 Earth & Planetary Sciences (also engineering geophysics, general geophysics, organic geochemistry, pale	geology, ge	Geological and Related Science 2 Cartography codesy and gravity, geomagnetis m, paleontology, physical geogra	m, hydro	logy, inorganic, isotopic, lab smology)
Oceanography	26.0607 Marine/Aquatic Biology (also biological, chemical, geological, p		2 Oceanography		
Other	(used for multidisciplinary projects with	in Earth, At	mospheric, and Ocean Sciences		
MATHEMATICAL SCIENCES	27.01 Mathematics, General 27.05 Mathematical Statistics (also algebra, analysis, foundations an	27.03 27.99 d logic, geo	Applied Mathematics Mathematics, Other metry, numerical analysis, topolo	30.08	2 Operations Research Math./Computer Sciences

Questionnaire Field		NCES Classificati	on and	Additional Illustrative	Discipl	ines (cont.)
COMPUTER SCIENCES	11 (also des	Computer and Information Scierign, development, and application	nce, Gene n of comp	eral 52.1201 Manager outer capabilities to data storage	ment Infor e and mar	mation Systems nipulation, information science)
AGRICULTURAL SCIENCES	01.03 02.01 03 (also agri	Agricultural Production Agricultural Sciences Renewable Natural Resources cultural chemistry, agronomy, an	02.04 04.06	Landscape Architecture	01.07 02.05 life, forest	International Agriculture Soil Science
BIOLOGICAL SCIENCES	19.05 26.0203 26.05 26.0609 26.0613 26.0699 26.0704 26.0799 26.99 51.1307 51.1313	Foods and Nutrition Studies Biophysics Microbiology/Bacteriology Nutritional Sciences Genetics, Plant and Animal Misc. Bio. Specializations, Other Pathology, Human and Animal Zoology, Other Biolog./Life Sciences, Other Medical Immunology Medical Physiology rgies and immunology, biogeogra	26.01 26.03 26.0601 26.0610 26.0614 26.0701 26.0705 51.1301 51.1308	Biology, General Botany Anatomy Parasitology Biometrics Zoology Pharmacology, Human and Animal Medical Anatomy Medical Microbiology Medical Toxicology	26.0202 26.04 26.0603 26.0615 26.0702 26.0706 51.1302 51.1312	P. Biochemistry Cell and Molecular Biology B. Ecology Toxicology Biostatistics P. Entomology Physiology, Human and Animal Medical Biochemistry Beginson
MEDICAL SCIENCES	26.0608 51.02 51.10 51.16 51.19 51.22 51.2399 Anesthes Dental/Or Gastroent Hematolo Neonatal- Nuclear M Oncology Otorhinola Physical a Psychiatry	Neurosciences Communication Disorders Sciences and Services Health and Medical Laboratory Technologies Nursing Technologies Osteopathic Medicine Public Health Rehab./Therapeutic Services iology all Surgery terology gy Perinatal Medicine fedicine aryngology and Rehabilitative Medicine	26.0611 51.04 51.1201 51.1610 51.20 51.2306 51.24 Cardiolo Dermato General Internal I Neurolog Nuclear Ophthalir Pediatric Plastic S	Radiation Biology/Radiobiol. Dentistry Medicine, General Nursing Psychiatry/ Mental Health Pharmacy Occupational Therapy Veterinary Medicine gy blogy Surgery Medicine gical Surgery Radiology mology ss	30.11 51.07 51.1399 51.17 51.21 51.2308 51.99 Colon air Family M Geriatrio Medical Neurolog Obstetrio Orthope Pharmac	Gerontology Health and Medical Administrative Services Med. Basic Sciences, Other Optometry Podiatry Physical Therapy Health Professions and Related Services, Other Medicine Medicine Medicine Medicine Programs, Other gy cs and Gynecology dics/Orthopedic Surgery
PSYCHOLOGY	42.01 51.2301 (also anim	Psychology, General Art Therapy nal behavior, educational, experin		Clinical Psychology		School Psychology
SOCIAL SCIENCES Economics	01.0103 (also appl resource)	Agricultural Economics ied, development, econometrics,	45.06 industrial	Economics , international, labor, public fina	52.06 ance and f	Business/Managerial Econ. fiscal policy, quantitative,
Political Science	45.10	Public Administration Public Admin. and Services, Othe Political Science and Governmer parative government, legal syster	er It	44.05 Public Policy Analysis 45.09 International Relations cal theory, regional studies)	and Affai	rs
Sociology	(also com	Anthropology (Social and Cultural only) parative and historical, complex of blems and welfare theory)		Demography and Population Studies ons, cultural and social structur		Sociology nteractions,
Other	45.01 45.12	Regional Planning Social Sciences, General	43.01 45.03 45.99	Area and Ethnic Studies Crim'l. Justice & Corrections Archaeology Social Sciences, Other	44.02	Linguistics Community Services Geography
OTHER SCIENCES, n.e.c.	(used whe	n the multidisciplinary and interdictassification under one primary f	sciplinary eld impo	r aspects ssible)		



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